Problem plant species

Slender naiad, Hydrilla, Water primrose

Management objectives

Reduce slender naiad and water primrose in developed shoreline areas and areas of high public access and use.

Manage hydrilla growth throughout the lake to minimize its spread within the lake, help prevent its spread to adjacent public waters, and minimize adverse impacts to agricultural irrigation withdrawals, and public use and access.

Selected control method

Problem Species	**Control Agent**
Slender naiad, Hydrilla	Aquathol K, Sonar, Triploid Grass Carp, chelated copper*
Water primrose	Renovate 3, Glyphosate, Habitat, Clearcast

Area to which control is to be applied

Slender naiad – Approximately 30 acres in priority areas such as public and commercial access sites and residential shoreline areas throughout the lake.

Water primrose – Approximately 30 acres in priority areas such as public and commercial access sites and residential shoreline areas throughout the lake.

Hydrilla - Approximately 400 acres in public and commercial access sites (boat ramps, piers, swimming areas, marinas) and residential shoreline areas in the lake and use herbicide applications to provide immediate short-term control of localized growth in approximately 25 acres of hydrilla infestation in upper Rabon Creek arm, 25 acres in the Reedy River Arm, 40 acres around Greenwood State Park, 10 acres in Lick Creek Branch, and 50 acres in the lower half of the lake.

Rate of control agents to be applied

Aquathol K - 0.5 to 4 ppm (about 3 to 8 gallons per acre depending on depth)

Habitat – 0.250 – 0.750 gallons per acre

Clearcast - -up to 5% spot spray

Sonar - 0.075 to 0.25 ppm

Chelated Copper- up to 1 ppm

Sonar Q, Sonar PR - up to .40 ppm (approx 10 pounds/acre)

Triploid Grass Carp – 3,756 total fish (15 fish per vegetated acre for additional 180 acres plus 32% of initial stocking rate(1,056) of hydrilla for mortality)

Method of application of control agents

Aquathol K, Sonar, chelated copper* - Subsurface application by airboat with adjuvant.

Renovate 3, Glyphosate, Habitat, Clearcast - spray on surface of foliage with appropriate surfactant.

Triploid grass carp – Using standard techniques to minimize loss, stock sterile grass carp in areas of the lake with the greatest hydrilla growth.

Timing and sequence of control application

Agent to be applied to slender naiad when plants are actively growing.

Agent to be applied to hydrilla when plants are actively growing but prior to tuber production.

Triploid grass carp to be released as soon as possible in the spring of 2010 (March-May). RESULTS FROM GRASS CARP MAY NOT BE EVIDENT FOR TWO OR MORE YEARS.

Other control application specifications

Herbicide used only upon approval by the S.C. Department of Health and Environmental Control.

Treatment of control area is to be conducted in a manner that will not significantly degrade water quality. Survey and final determination of treatment areas to be conducted in conjunction with the South Carolina Department of Natural Resources district fisheries biologist. In general, treatment will be limited to developed shoreline areas, public access sites, and areas of high public use.

Hydrilla may require multiple treatments.

Entity to apply control system

Commercial applicator

Estimated cost of control operations

$88,732

Potential sources of funding

Greenwood County 50%

U.S. Army Corps of Engineers 0%

S.C. Department of Natural Resources 50% (up to $40,000 cost share per waterbody)

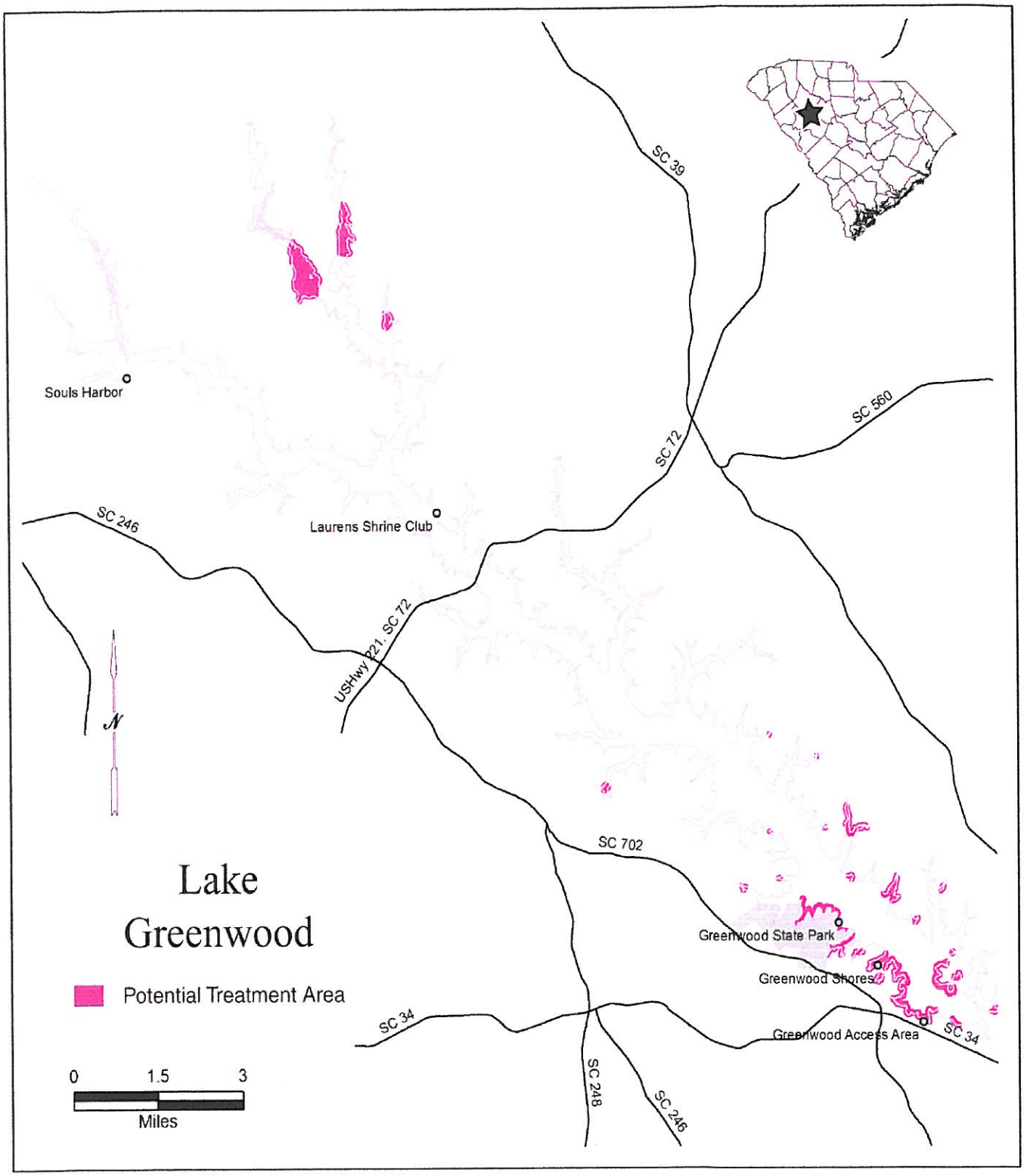
(Percentage of match subject to change based on availability of Federal and State funding.)

Long term management strategy

a) Manage the distribution and abundance of nuisance aquatic plant populations at levels that minimize adverse impacts to water use activities and the environment through the use of federal and state approved control methods.

b) Maintain or enhance native aquatic plant populations at levels beneficial to water use, water quality, and fish and wildlife populations through selective control of nuisance plant populations where feasible, introduction of native plant species where appropriate, and public education of the benefits of aquatic vegetation in general.

c) Seek to prevent further introduction and distribution of problem species through public education, posting signs at boat ramps, regular surveys of the water body, and enforcement of existing laws and regulations.


SC 39
Souls Harbor
SC 72
SC 560
SC 246
Laurens Shrine Club
USHwy 221, SC 72
N
SC 702
Lake
Greenwood
Potential Treatment Area
Greenwood State Park
Greenwood Shores
Greenwood Access Area
SC 34
SC 34
SC 248
SC 246
0
1.5
3
Miles